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May 12, 2006

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Ms. Wendy Cohen, Policy & Planning Unit  
Irrigated Lands Conditional Waiver Program  
Regional Water Quality Control Board – Central Valley Region  
11020 Sun Center Drive, #200  
Rancho Cordova, CA 95670

Re: Tentative Conditional Waivers – Proposed Orders

Generally, there is little to be gained economically from farming in Nevada County but our irrigated lands provide cool, fire-safe, dust-free, aesthetically pleasing areas that nourish us, economically, environmentally, socially, culturally, and spiritually. We value our irrigated farmers and want to encourage them, not penalize and discourage them with more fees, regulations and aggravation. So, again, I request Nevada County be exempted from the Irrigated Lands Program for the following reasons.

Nevada County has very little agriculture, other than timber. The 2002 census indicated only 6,700 acres of irrigated land. Most of the irrigated lands are in permanent pastures, which have positive rather than negative effects on the environment and water quality. Most of the pastures are sprinkler irrigated, so there is little or no run-off or return flow during the irrigation season (4/15 – 10/15). During storm events the permanent pastures serve as <sup>cover</sup> crops, preventing erosion and reducing run-off of storm water and the chemicals and nutrients it might be carrying (see Atch. 1, Horwath article). Vineyards probably represent our second largest irrigated crop. Most of our vineyards are drip irrigated. Again, no return flows or run-off during the irrigation season. Most of our vineyards use permanent or winter cover crops to prevent soil erosion.

The use of chemicals is very low in Nevada County (see Atch. 2, 2004 Pesticide Use Report). Of the chemicals of interest, only Diazinon (31.4 pounds) and Malathion (2.8 pounds) were reported in 2004. That is a small drop in a very large bucket.

Irrigated lands provide another very important benefit in Nevada County, much of which is identified by CDF as being in a "very high fire hazard severity zone". During wildfires, irrigated lands (especially pastures) provide all-important fire breaks which can slow or even stop a fire, staging areas for firefighters, and safe-to-stay areas for residents and firefighters.

Because irrigated lands in Nevada County provide so many benefits and pose such a low risk to the waters of the State, I request that Nevada County be exempted from the Irrigated Lands Program, or be granted a county-wide *de minimus* waiver.

Sincerely,



Carol L. Hollingsworth  
11713 Polaris Drive  
Grass Valley, CA 95949

Attachments: 2

Ref: Cohen

# Researchers seek best ways to hold water on a field

By Bob Johnson

University of California researchers are reaching new levels of precision in their trials on how different farming practices affect the amount of storm water that runs off from a field and into a nearby creek or river.

Recent trials at the university's Russell Ranch near the UC Davis campus in Yolo County show that keeping the ground covered during the winter dramatically reduces the level of runoff from a field.

"Cover crops provide an immediate positive effect in minimizing total discharge and load of pollutants from grower fields," said Will Horwath, UC Davis professor in the Department of Land, Air and Water Resources.

Horwath is the project leader of the campus-based Sustainable Agriculture Farming Systems project, which recently merged with the Long Term Research on Agriculture Systems project to form the Center for Integrated Farming Systems. Horwath's group is studying long-term effects of different farming practices on air pollution and runoff water pollution.

The jury is still out on whether reducing cultivation reduces runoff because the results have been mixed in trials of this alternative. But installing buried drip irrigation can significantly reduce in-season runoff by dramatically reducing the amount of water applied to the field.

And planting winter cover crops can reduce storm water runoff even before the cover crop has established significant canopy cover.

The on-farm trial of cover crops and storm runoff in the winter of 2004 was conducted on a sloping field. In the fallow plots, 16 percent of the storm water left the field as runoff. In the adjacent plots with cover crops, however, only 1 percent of the storm water left the field as runoff. The winter of 2005 trial was conducted on flatter ground

Photo/Bob Johnson



Will Horwath, UC Davis professor in the Department of Land, Air and Water Resources, is studying the use of cover crops to reduce water runoff from farm fields.

and only 1.1 percent of the storm water left the field in the fallow area. But even on this flat ground the cover crops reduced runoff substantially to less than 0.05 percent of the storm water.

In addition to measuring the amount of runoff, re-

searchers have also analyzed the runoff water for its level of total soluble solids, nitrates, ammonium, phosphorus and dissolved organic carbon.

The level of dissolved organic carbon in the runoff water is particularly important, according to Horwath, be-

cause many of these compounds can form carcinogenic materials when they interact with chemicals commonly used in water treatment plants.

"The concentration of materials does not seem to change under different practices, so if you reduce the runoff you reduce the load," Horwath said.

Many growers in the Sacramento Valley and northern San Joaquin Valley are already managing winter runoff as a consequence of their crop rotation scheme.

"If you're doing a tomato and wheat rotation, during the wheat year you already have less runoff," Horwath said.

He noted, however, that only a handful of growers plant winter cover crops rather than allow their land to lie fallow because most find it to be costly or to interfere with spring planting. The long-term answer to that dilemma, according to Horwath, might be to find a winter cash crop that can be grown in rotation with warmer season crops.

In the most recent trial at Russell Ranch, leaving residue in the ground reduced the amount of storm water runoff.

But the results of trials of the effect of conservation tillage on runoff have been contradictory. Conservation tillage is defined as a program that either leaves 30 percent of the ground covered by residue or that reduces the number of tractor passes by 40 percent or more.

In a trial at a nearby commercial farm, runoff increased in plots where cultivation was reduced, most likely as the result of soil sealing or compaction. Because they are more precise and efficient, subsurface drip systems make it possible to substantially reduce in-season runoff and also reduce water and pumping costs.

"Subsurface drip irrigation is a way to apply just the amount of water the crop needs; our studies show you only need to apply about 30 percent as much water as with furrow irrigation," Horwath said.

Because the top of the soil does not get wet, subsurface drip irrigation has the added benefit of nearly eliminating problems with weeds germinating dur-

ing the crop season.

The cost differences between subsurface drip and furrow irrigation have already narrowed substantially in recent years.

"A farmer could pay it off in around five years if they had average crop yields, but it would take a little longer if there was poor production in one of the years," Horwath said.

But subsurface drip systems must be watched closely to make sure that torn line, clogged emitters or other unexpected problems are not preventing water from reaching the crop.

"It's not like an off-the-shelf technology that you can just put in and forget about," Horwath said.

But drip irrigation could be an essential piece of the puzzle of reducing runoff from difficult fields.

"The ideal situation would be to have subsurface drip

irrigation to prevent runoff in the summer and plant a cover crop in the winter," Horwath said.

But as quickly as he presented this shorthand version of the most recent findings on water quality, Horwath corrected himself.

"The answer is not to impose the same solutions everywhere because farmers don't have the same runoff problems," he said. "Some coarse soils don't have much runoff no matter how you handle it. Some land is sloped and has runoff, while other land is level or at the bottom of a slope."

Horwath said he thinks it might be wise to develop a site index system of grading fields in terms of their runoff potential, much like there is already a system for grading them in terms of their soil quality.

*(Bob Johnson is a reporter in Davis. He may be contacted at [bjohn11135@aol.com](mailto:bjohn11135@aol.com).)*

## Comments sought on raisin petition

The U.S. Department of Agriculture is seeking comments on a petition to change the U.S. Standards for Grades of Processed Raisins.

The Raisin Administrative Committee has petitioned USDA's Agricultural Marketing Service to revise the current grade standards by adding and modifying the wording for raisins in the Type I varieties as described in the section 52.1843 summary of varieties of processed raisins.

The change would update the standards to more closely reflect current marketing practices and maintain their usefulness to the industry. An average of

600 million pounds of raisins produced yearly in the United States would be affected by this revision to the U.S. standards.

The current standard and the petition can be viewed at [www.ams.usda.gov/fv/ppb.html](http://www.ams.usda.gov/fv/ppb.html), and the request for comments appeared in the Feb. 28 *Federal Register*. Comments should be sent no later than May 1 by mail to Karen Kaufman, AMS Fruit and Vegetable Programs, USDA Stop 0247, 1400 Independence Ave. S.W., Washington, DC 20250-0247, by fax to (202) 690-1527 or by e-mail to [karen.kaufman@usda.gov](mailto:karen.kaufman@usda.gov).

Department of Pesticide Regulation  
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| Commodity          | Chemical  | Pounds Applied | Agricultural Applications | Amount Treated | Unit Type |
|--------------------|---|----------------|---------------------------|----------------|-----------|
| APPLE              |   |                |                           |                |           |
|                    | CAPTAN  | 3.9120         | 1                         | 1.00           | A         |
|                    | CAPTAN, OTHER RELATED   | 0.0880         | 1                         | 1.00           | A         |
|                    | COPPER HYDROXIDE  | 4.6050         | 4                         | 4.00           | A         |
|                    | DIAZINON  | 31.4250        | 8                         | 21.95          | A         |
|                    | E,E-8,10-DODECADIEN-1-OL  | 0.1836         | 82                        | 213.50         | A         |
|                    | GLYPHOSATE, ISOPROPYLAMINE SALT   | 9.2213         | 2                         | 9.00           | A         |
|                    | MALATHION   | 2.8219         | 5                         | 2.50           | A         |
|                    | MINERAL OIL   | 688.7644       | 4                         | 12.00          | A         |
|                    | MYCLOBUTANIL  | 2.9750         | 8                         | 19.50          | A         |
|                    | PETROLEUM OIL, UNCLASSIFIED   | 130.2262       | 7                         | 31.50          | A         |
|                    | PHOSMET   | 35.6938        | 15                        | 42.70          | A         |
|                    | STRYCHNINE  | 1.0800         | 3                         | 12.00          | A         |
|                    | THIRAM  | 58.5000        | 3                         | 11.00          | A         |
|                    | Site Total  | 969.4962       | 142                       |                |           |
| CHRISTMAS TREE     |   |                |                           |                |           |
|                    | ORYZALIN  | 0.9751         | 1                         | 4.00           | A         |
|                    | Site Total  | 0.9751         | 1                         |                |           |
| FOREST, TIMBERLAND |   |                |                           |                |           |
|                    | 2-(3-HYDROXYPROPYL)-HEPTA-METHYL TRISILOXANE, ETHOXYLATED, ACETATE                            | 4.5660         | 1                         | 49.00          | A         |
|                    | OLEIC ACID, METHYL ESTER  | 13.6979        | 1                         | 49.00          | A         |
|                    | Site Total  | 18.2639        | 1                         |                |           |
| GRAPE, WINE        |   |                |                           |                |           |
|                    | ABAMECTIN   | 0.6034         | 5                         | 52.00          | A         |
|                    | AZOXYSTROBIN  | 0.8317         | 2                         | 3.60           | A         |
|                    | BOSCALID  | 10.3635        | 5                         | 64.20          | A         |
|                    | BUTYL ALCOHOL   | 0.1471         | 1                         | 4.00           | A         |
|                    | CLARIFIED HYDROPHOBIC EXTRACT OF NEEM OIL   | 76.4211        | 2                         | 10.00          | A         |
|                    | COPPER HYDROXIDE  | 49.0522        | 15                        | 91.00          | A         |
|                    | COPPER OXIDE (OUS)  | 21.7675        | 4                         | 20.00          | A         |
|                    | CYPRODINIL  | 1.4063         | 1                         | 3.00           | A         |
|                    | ETHYLENE GLYCOL   | 10.2054        | 3                         | 45.00          | A         |
|                    | FATTY ACIDS, MIXED  | 0.1726         | 5                         | 7.50           | A         |
|                    | FENARIMOL   | 0.9025         | 10                        | 28.40          | A         |
|                    | FENHEXAMID  | 2.7850         | 2                         | 7.50           | A         |
|                    | GLYPHOSATE, ISOPROPYLAMINE SALT   | 17.1454        | 10                        | 24.31          | A         |
|                    | IMIDACLOPRID  | 0.3223         | 3                         | 16.00          | A         |
|                    | ISOPROPYL ALCOHOL   | 5.3802         | 7                         | 84.00          | A         |
|                    | MODIFIED PHTHALIC GLYCEROL ALKYD RESIN  | 31.9515        | 15                        | 169.50         | A         |
|                    | MYCLOBUTANIL  | 7.3250         | 9                         | 83.00          | A         |
|                    | 4-NONYLPHENOL, FORMALDEHYDE RESIN, PROPOXYLATED   | 5.9944         | 21                        | 45.06          | A         |
|                    | ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXYPOLY(OXYETHYLENE)                                       | 23.9285        | 27                        | 125.06         | A         |
|                    | ALPHA-OCTYLPHENYL-OMEGA-HYDROXYPOLY(OXYETHYLENE)  | 1.9567         | 1                         | 4.00           | A         |
|                    | OXYFLUORFEN   | 7.8252         | 3                         | 9.00           | A         |
|                    | PETROLEUM DISTILLATES, REFINED  | 200.5527       | 6                         | 17.90          | A         |
|                    | POLY-1-PARA-MENTHENE  | 21.4116        | 18                        | 90.00          | A         |
|                    | POTASSIUM BICARBONATE   | 136.9400       | 11                        | 52.00          | A         |
|                    | PYRACLOSTROBIN  | 5.2640         | 5                         | 64.20          | A         |
|                    | PYRIDABEN   | 0.9281         | 1                         | 13.00          | A         |
|                    | QST 713 STRAIN OF DRIED BACILLUS SUBTILIS   | 17.7000        | 11                        | 35.00          | A         |
|                    | SIMAZINE  | 2.7000         | 2                         | 6.50           | A         |
|                    | STRYCHNINE  | 0.0350         | 2                         | 6.50           | A         |
|                    | SULFUR  | 10,919.0755    | 153                       | 1,024.20       | A         |
|                    | TALL OIL  | 0.9082         | 3                         | 35.00          | A         |
|                    | TEBUCONAZOLE  | 0.5625         | 1                         | 4.00           | A         |
|                    | ALPHA-[PARA-(1,1,3,3,-TETRAMETHYLBUTYL)PHENYL]-OMEGA-HYDROXYPOLY(OXYETHYLENE) PHOSPHATE ESTER | 0.8236         | 1                         | 4.00           | A         |
|                    | TRIADIMEFON   | 0.1875         | 2                         | 3.00           | A         |
|                    | TRIFLOXYSTROBIN   | 0.9375         | 4                         | 13.50          | A         |
|                    | TRIFLUMIZOLE  | 7.2500         | 2                         | 29.00          | A         |
|                    | Site Total  | 11,591.7637    | 328                       |                |           |

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|-----------------------|--|----------------|---------------------------|----------------|-----------|
| LANDSCAPE MAINTENANCE |  |                |                           |                |           |
|                       | ABAMECTIN  | 0.3279         |                           |                |           |
|                       | ACEPHATE   | 1.4039         |                           |                |           |
|                       | ACID BLUE 9, DIAMMONIUM SALT                                       | 2.1810         |                           |                |           |
|                       | ALUMINUM PHOSPHIDE   | 27.9813        |                           |                |           |
|                       | AZOXYSTROBIN   | 15.4469        |                           |                |           |
|                       | BENEFIN  | 0.0380         |                           |                |           |
|                       | BENZOIC ACID   | 0.0113         |                           |                |           |
|                       | BIFENTHRIN   | 1.5013         |                           |                |           |
|                       | BRODIFACOU   | 0.0001         |                           |                |           |
|                       | BUTYL ALCOHOL  | 2.2299         |                           |                |           |
|                       | CARBARYL   | 26.0965        |                           |                |           |
|                       | CARFENTHAZONE-ETHYL  | 0.4122         |                           |                |           |
|                       | CHLOROPHACINONE  | 0.0002         |                           |                |           |
|                       | CHLOROTHALONIL   | 96.4063        |                           |                |           |
|                       | CHLORPYRIFOS   | 4.7013         |                           |                |           |
|                       | CHLORSULFURON  | 0.0875         |                           |                |           |
|                       | CLOPYRALID, MONOETHANOLAMINE SALT                                  | 39.6974        |                           |                |           |
|                       | CLOPYRALID, TRIETHYLAMINE SALT                                     | 14.9069        |                           |                |           |
|                       | COCONUT DIETHANOLAMIDE   | 0.0082         |                           |                |           |
|                       | COPPER CARBONATE, BASIC  | 39.9655        |                           |                |           |
|                       | COPPER ETHANOLAMINE COMPLEXES, MIXED                               | 393.4060       |                           |                |           |
|                       | COPPER HYDROXIDE   | 2.4560         |                           |                |           |
|                       | COPPER SULFATE (PENTAHYDRATE)                                      | 136.0000       |                           |                |           |
|                       | CYFLUTHRIN   | 0.0040         |                           |                |           |
|                       | BETA-CYFLUTHRIN  | 0.0013         |                           |                |           |
|                       | CYPERMETHRIN   | 0.8500         |                           |                |           |
|                       | 2,4-D  | 0.0547         |                           |                |           |
|                       | 2,4-D, DIMETHYLAMINE SALT  | 4.0814         |                           |                |           |
|                       | 2,4-D, 2-ETHYLHEXYL ESTER  | 8.0066         |                           |                |           |
|                       | DELTAMETHRIN   | 0.0004         |                           |                |           |
|                       | DIAZINON   | 0.6770         |                           |                |           |
|                       | DICAMBA  | 0.5165         |                           |                |           |
|                       | DICAMBA, DIMETHYLAMINE SALT  | 0.1136         |                           |                |           |
|                       | DIKEGULAC SODIUM   | 0.2887         |                           |                |           |
|                       | DIMETHYLPOLYSILOXANE   | 0.0251         |                           |                |           |
|                       | DIPHACINONE  | 0.0015         |                           |                |           |
|                       | DIQUAT DIBROMIDE   | 509.5961       |                           |                |           |
|                       | DISULFOTON   | 0.0800         |                           |                |           |
|                       | DITHIOPYR  | 1.3509         |                           |                |           |
|                       | DIURON   | 93.1810        |                           |                |           |
|                       | DODECYLBENZENE SULFONIC ACID                                       | 0.0355         |                           |                |           |
|                       | 2,4-DP-P, DIMETHYLAMINE SALT                                       | 4.5996         |                           |                |           |
|                       | EDTA, TETRASODIUM SALT   | 0.0022         |                           |                |           |
|                       | ENDOTHALL, DIPOTASSIUM SALT  | 808.4706       |                           |                |           |
|                       | ETHEPHON   | 5.1559         |                           |                |           |
|                       | ETHOFUMESATE   | 1.5036         |                           |                |           |
|                       | FATTY ACIDS, MIXED   | 0.5279         |                           |                |           |
|                       | FENBUTATIN-OXIDE   | 0.0017         |                           |                |           |
|                       | FERRIC SULFATE (ANHYDROUS)   | 0.7660         |                           |                |           |
|                       | FLUAZIFOP-P-BUTYL  | 0.0235         |                           |                |           |
|                       | FLURIDONE  | 7.7616         |                           |                |           |
|                       | FLUTOLANIL   | 7.3500         |                           |                |           |
|                       | GLYPHOSATE, DIAMMONIUM SALT  | 28.0342        |                           |                |           |
|                       | GLYPHOSATE, ISOPROPYLAMINE SALT                                    | 1,942.7728     |                           |                |           |
|                       | GLYPHOSATE, MONOAMMONIUM SALT                                      | 80.1876        |                           |                |           |
|                       | HALOSULFURON   | 0.0037         |                           |                |           |
|                       | 2-(3-HYDROXYPROPYL)-HEPTA-METHYL TRISILOXANE, ETHOXYLATED, ACETATE | 0.6451         |                           |                |           |
|                       | IMAZAPYR, ISOPROPYLAMINE SALT                                      | 33.5831        |                           |                |           |
|                       | IMIDACLOPRID   | 5.4472         |                           |                |           |
|                       | IPRODIONE  | 12.3597        |                           |                |           |
|                       | ISOPROPYL ALCOHOL  | 0.6302         |                           |                |           |
|                       | ISOXABEN   | 1.8682         |                           |                |           |
|                       | LIME-SULFUR  | 0.2835         |                           |                |           |
|                       | MANCOZEB   | 63.2937        |                           |                |           |
|                       | MANGANESE SULFATE  | 7.2567         |                           |                |           |
|                       | MCPA, DIMETHYLAMINE SALT   | 23.0319        |                           |                |           |
|                       | MCPP   | 0.0245         |                           |                |           |

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|------------------------------|--|----------------|---------------------------|----------------|-----------|
| LANDSCAPE MAINTENANCE        |  |                |                           |                |           |
|                              | MCPP-P, DIMETHYLAMINE SALT   | 0.3352         |                           |                |           |
|                              | MECOPROP-P   | 2.0303         |                           |                |           |
|                              | METHYLATED SOYBEAN OIL   | 167.4337       |                           |                |           |
|                              | MINERAL OIL  | 32.3072        |                           |                |           |
|                              | MSMA   | 17.0017        |                           |                |           |
|                              | ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXYPOLY(OXYETHYLENE)                      | 61.0314        |                           |                |           |
|                              | ALPHA-OCTYLPHENYL-OMEGA-HYDROXYPOLY(OXYETHYLENE)                             | 0.0391         |                           |                |           |
|                              | OLEIC ACID   | 0.0847         |                           |                |           |
|                              | OLEIC ACID, METHYL ESTER   | 1.9354         |                           |                |           |
|                              | ORYZALIN   | 10.9626        |                           |                |           |
|                              | OXADIAZON  | 0.1600         |                           |                |           |
|                              | PCNB   | 42.5000        |                           |                |           |
|                              | PENDIMETHALIN  | 61.4079        |                           |                |           |
|                              | PERMETHRIN   | 28.0944        |                           |                |           |
|                              | PETROLEUM DISTILLATES  | 0.1886         |                           |                |           |
|                              | PETROLEUM DISTILLATES, REFINED   | 11.6549        |                           |                |           |
|                              | PETROLEUM OIL, UNCLASSIFIED  | 18.3783        |                           |                |           |
|                              | PHOSPHORIC ACID  | 0.0283         |                           |                |           |
|                              | PIPERONYL BUTOXIDE   | 1.0001         |                           |                |           |
|                              | PIPERONYL BUTOXIDE, OTHER RELATED  | 0.2500         |                           |                |           |
|                              | POLYACRYLAMIDE POLYMER   | 0.0675         |                           |                |           |
|                              | POLYALKENE OXIDE MODIFIED HEPTAMETHYL TRISILOXANE                            | 8.3717         |                           |                |           |
|                              | POLYSACCHARIDE POLYMER   | 0.0075         |                           |                |           |
|                              | POTASH SOAP  | 0.5459         |                           |                |           |
|                              | PRODIAMINE   | 51.6239        |                           |                |           |
|                              | PROPICONAZOLE  | 14.6403        |                           |                |           |
|                              | PROPOXUR   | 0.0077         |                           |                |           |
|                              | PYRETHRINS   | 0.1063         |                           |                |           |
|                              | QUINCLORAC   | 0.1406         |                           |                |           |
|                              | SILICONE DEFOAMER  | 0.0009         |                           |                |           |
|                              | SIMAZINE   | 31.6207        |                           |                |           |
|                              | SODIUM XYLENE SULFONATE  | 0.0109         |                           |                |           |
|                              | SOYBEAN FATTY ACIDS, DIMETHYLAMINE SALT                                      | 0.0144         |                           |                |           |
|                              | SULFOMETURON-METHYL  | 0.9655         |                           |                |           |
|                              | TALL OIL   | 0.1073         |                           |                |           |
|                              | TARTRAZINE   | 0.2206         |                           |                |           |
|                              | ALPHA-[PARA-(1,1,3,3-TETRAMETHYLBUTYL)PHENYL]-OMEGA-HYDROXYPOLY(OXYETHYLENE) | 1.4395         |                           |                |           |
|                              | TETRAPOTASSIUM PYROPHOSPHATE   | 0.0055         |                           |                |           |
|                              | THIOPHANATE-METHYL   | 15.1451        |                           |                |           |
|                              | TRIADIMEFON  | 1.0331         |                           |                |           |
|                              | TRICLOPYR, TRIETHYLAMINE SALT  | 88.3526        |                           |                |           |
|                              | TRICLOPYR, BUTOXYETHYL ESTER   | 313.3528       |                           |                |           |
|                              | TRIETHANOLAMINE  | 0.0139         |                           |                |           |
|                              | TRIFLURALIN  | 0.8069         |                           |                |           |
|                              | TRIFORINE  | 0.0072         |                           |                |           |
|                              | TRINEXAPAC-ETHYL   | 0.2368         |                           |                |           |
|                              | ZINC PHOSPHIDE   | 0.0157         |                           |                |           |
|                              | ZINC SULFATE   | 0.9330         |                           |                |           |
|                              | Site Total   | 5,446.3322     |                           |                |           |
| N-GRNHS TRANSPLANTS          |  |                |                           |                |           |
|                              | GLYPHOSATE, ISOPROPYLAMINE SALT  | 0.1239         | 2                         | 0.64           | A         |
|                              | IMIDACLOPRID   | 0.0039         | 1                         | 0.13           | A         |
|                              | IPIRODIONE   | 0.0117         | 2                         | 0.53           | A         |
|                              | Site Total   | 0.1395         | 5                         |                |           |
| N-OUTDR PLANTS IN CONTAINERS |  |                |                           |                |           |
|                              | GLYPHOSATE, ISOPROPYLAMINE SALT  | 2.6978         | 6                         | 30.00          | A         |
|                              | Site Total   | 2.6978         | 6                         |                |           |
| N-OUTDR TRANSPLANTS          |  |                |                           |                |           |
|                              | CARBARYL   | 0.0187         | 1                         | 0.68           | A         |
|                              | GLYPHOSATE, ISOPROPYLAMINE SALT  | 5.6890         | 29                        | 30.50          | A         |

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| Commodity               | Chemical   | Pounds Applied | Agricultural Applications | Amount Treated | Unit Type |
|-------------------------|--|----------------|---------------------------|----------------|-----------|
| N-OUTDR TRANSPLANTS     |  |                |                           |                |           |
|                         | ORYZALIN   | 0.0400         | 2                         | 2.00           | A         |
|                         | OXYFLUORFEN  | 0.0800         | 2                         | 2.00           | A         |
|                         | Site Total   | 5.8277         | 32                        |                |           |
| PASTURELAND             |  |                |                           |                |           |
|                         | 4-NONYLPHENOL, FORMALDEHYDE RESIN, PROPOXYLATED                    | 0.2980         | 1                         | 3.50           | A         |
|                         | ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXYPOLY(OXYETHYLENE)            | 0.3612         | 1                         | 3.50           | A         |
|                         | TRICLOPYR, BUTOXYETHYL ESTER                                       | 47.1052        | 2                         | 375.00         | A         |
|                         | Site Total   | 47.7644        | 3                         |                |           |
| PEACH                   |  |                |                           |                |           |
|                         | BACILLUS THURINGIENSIS, SUBSP. KURSTAKI, STRAIN                    |                |                           |                |           |
|                         | ABTS-351, FERMENTATION SOLIDS AND SOLUBLES                         | 29.0419        | 13                        | 40.50          | A         |
|                         | COPPER OXIDE (OUS)   | 292.3915       | 9                         | 33.50          | A         |
|                         | MINERAL OIL  | 473.5255       | 3                         | 11.00          | A         |
|                         | SULFUR   | 208.8300       | 7                         | 23.90          | A         |
|                         | Site Total   | 1,003.7889     | 32                        |                |           |
| RANGELAND               |  |                |                           |                |           |
|                         | ALPHA-ALKYLARYL-OMEGA-HYDROXYPOLY(OXYETHYLENE)                     | 0.5767         | 3                         | 10.00          | A         |
|                         | CLOPYRALID, MONOETHANOLAMINE SALT                                  | 1.0198         | 3                         | 5.70           | A         |
|                         | 2,4-D, DIMETHYLAMINE SALT  | 12.4367        | 4                         | 12.00          | A         |
|                         | FATTY ACIDS, MIXED   | 0.0304         | 3                         | 10.00          | A         |
|                         | GLYPHOSATE, ISOPROPYLAMINE SALT                                    | 5.2467         | 5                         | 52.75          | A         |
|                         | ISOPROPYL ALCOHOL  | 0.2233         | 3                         | 10.00          | A         |
|                         | TRICLOPYR, BUTOXYETHYL ESTER                                       | 100.0551       | 21                        | 102.75         | A         |
|                         | Site Total   | 119.5887       | 36                        |                |           |
| REGULATORY PEST CONTROL |  |                |                           |                |           |
|                         | BUTYL ALCOHOL  | 0.8456         |                           |                |           |
|                         | CHLORSULFURON  | 0.1775         |                           |                |           |
|                         | CLOPYRALID, MONOETHANOLAMINE SALT                                  | 2.9280         |                           |                |           |
|                         | DIMETHYLPOLYSILOXANE   | 0.0095         |                           |                |           |
|                         | GLYPHOSATE, ISOPROPYLAMINE SALT                                    | 1.4828         |                           |                |           |
|                         | ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXYPOLY(OXYETHYLENE)            | 7.6012         |                           |                |           |
|                         | Site Total   | 13.0446        |                           |                |           |
| RIGHTS OF WAY           |  |                |                           |                |           |
|                         | ACROLEIN   | 3,209.0013     |                           |                |           |
|                         | BUTYL ALCOHOL  | 0.9378         |                           |                |           |
|                         | CARBARYL   | 1.3435         |                           |                |           |
|                         | CHLORSULFURON  | 2.1850         |                           |                |           |
|                         | CLOPYRALID, MONOETHANOLAMINE SALT                                  | 0.9487         |                           |                |           |
|                         | CLOPYRALID, TRIETHYLAMINE SALT                                     | 0.0588         |                           |                |           |
|                         | COPPER ETHANOLAMINE COMPLEXES, MIXED                               | 674.7204       |                           |                |           |
|                         | COPPER HYDROXIDE   | 4.6940         |                           |                |           |
|                         | COPPER SULFATE (PENTAHYDRATE)                                      | 863.2800       |                           |                |           |
|                         | 2,4-D, 2-ETHYLHEXYL ESTER  | 22.6084        |                           |                |           |
|                         | DIMETHYLPOLYSILOXANE   | 0.0105         |                           |                |           |
|                         | DIPHACINONE  | 0.0048         |                           |                |           |
|                         | DIURON   | 2,082.8688     |                           |                |           |
|                         | FATTY ACIDS, MIXED   | 124.1643       |                           |                |           |
|                         | FLUAZIFOP-P-BUTYL  | 0.0078         |                           |                |           |
|                         | GLYPHOSATE, ISOPROPYLAMINE SALT                                    | 3,376.6108     |                           |                |           |
|                         | TOTAL POUNDS OF THIS CHEMICAL                                      | 1.2490         | 1                         | 2,400.00       | S         |
|                         | 2-(3-HYDROXYPROPYL)-HEPTA-METHYL TRISILOXANE, ETHOXYLATED, ACETATE | 5.1975         |                           |                |           |
|                         | IMAZAPYR, ISOPROPYLAMINE SALT                                      | 53.3369        |                           |                |           |
|                         | IRON PHOSPHATE   | 0.0050         |                           |                |           |
|                         | ISOXABEN   | 12.0000        |                           |                |           |
|                         | MANCOZEB   | 1.6000         |                           |                |           |
|                         | METHYLATED SOYBEAN OIL   | 0.3316         |                           |                |           |

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|-------------------------|---|----------------|---------------------------|----------------|-----------|
| RIGHTS OF WAY           |   |                |                           |                |           |
|                         | 4-NONYLPHENOL, FORMALDEHYDE RESIN, PROPOXYLATED         | 0.0426         |                           |                |           |
|                         | ALPHA-(PARA-NONYLPHENYL)-OMEGA-HYDROXYPOLY(OXYETHYLENE) | 629.3654       |                           |                |           |
|                         | NORFLURAZON   | 22.4010        |                           |                |           |
|                         | OLEIC ACID, METHYL ESTER                                | 424.0522       |                           |                |           |
|                         | ORYZALIN  | 835.7346       |                           |                |           |
|                         | PERMETHRIN  | 4.6179         |                           |                |           |
|                         | POLYALKENE OXIDE MODIFIED HEPTAMETHYL TRISILOXANE       | 0.0166         |                           |                |           |
|                         | PRODIAMINE  | 91.3250        |                           |                |           |
|                         | SULFOMETURON-METHYL                                     | 19.1220        |                           |                |           |
|                         | TRICLOPYR, TRIETHYLAMINE SALT                           | 26.5256        |                           |                |           |
|                         | TRICLOPYR, BUTOXYETHYL ESTER                            | 87.8263        |                           |                |           |
| Site Total              |   | 12,578.1941    | 1                         |                |           |
| STRUCTURAL PEST CONTROL |   |                |                           |                |           |
|                         | ABAMECTIN   | 0.0087         |                           |                |           |
|                         | ACEPHATE  | 0.5753         |                           |                |           |
|                         | ALLETHRIN   | 0.7021         |                           |                |           |
|                         | ALLETHRIN, OTHER RELATED                                | 0.0531         |                           |                |           |
|                         | D-TRANS ALLETHRIN                                       | 0.1252         |                           |                |           |
|                         | ALUMINUM PHOSPHIDE                                      | 3.7932         |                           |                |           |
|                         | AZOXYSTROBIN  | 0.0313         |                           |                |           |
|                         | BIFENTHRIN  | 298.3458       |                           |                |           |
|                         | BORAX   | 0.6452         |                           |                |           |
|                         | BORIC ACID  | 50.0703        |                           |                |           |
|                         | BRODIFACOU  | 0.0091         |                           |                |           |
|                         | BROMADIOLONE  | 0.0708         |                           |                |           |
|                         | CARBARYL  | 0.9673         |                           |                |           |
|                         | CARFENTHAZONE-ETHYL                                     | 0.0198         |                           |                |           |
|                         | CHLORFENAPYR  | 2.9232         |                           |                |           |
|                         | CHLOROPHACINONE   | 0.0044         |                           |                |           |
|                         | CHLORPYRIFOS  | 0.0938         |                           |                |           |
|                         | CHOLECALCIFEROL   | 0.0166         |                           |                |           |
|                         | CLOPYRALID, MONOETHANOLAMINE SALT                       | 0.6645         |                           |                |           |
|                         | COPPER CARBONATE, BASIC                                 | 0.2525         |                           |                |           |
|                         | COPPER HYDROXIDE  | 0.6140         |                           |                |           |
|                         | COPPER NAPHTHENATE                                      | 0.0877         |                           |                |           |
|                         | CYFLUTHRIN  | 98.1028        |                           |                |           |
|                         | BETA-CYFLUTHRIN   | 7.5252         |                           |                |           |
|                         | CYPERMETHRIN  | 220.8689       |                           |                |           |
|                         | 2,4-D, DIMETHYLAMINE SALT                               | 1.1262         |                           |                |           |
|                         | 2,4-D, 2-ETHYLHEXYL ESTER                               | 0.3840         |                           |                |           |
|                         | DELTAMETHRIN  | 18.7065        |                           |                |           |
|                         | DIAZINON  | 23.4131        |                           |                |           |
|                         | DICAMBA   | 0.0245         |                           |                |           |
|                         | DIFETHIALONE  | 0.0002         |                           |                |           |
|                         | DIPHACINONE   | 0.0069         |                           |                |           |
|                         | DIPHACINONE, SODIUM SALT                                | 0.0001         |                           |                |           |
|                         | DIQUAT DIBROMIDE  | 0.1568         |                           |                |           |
|                         | DISODIUM OCTABORATE TETRAHYDRATE                        | 189.7126       |                           |                |           |
|                         | DITHIOPYR   | 0.0628         |                           |                |           |
|                         | FIPRONIL  | 77.2130        |                           |                |           |
|                         | FLUAZIFOP-P-BUTYL                                       | 0.0078         |                           |                |           |
|                         | FLURIDONE   | 0.1560         |                           |                |           |
|                         | GARLIC  | 0.0066         |                           |                |           |
|                         | GLYPHOSATE, ISOPROPYLAMINE SALT                         | 164.8101       |                           |                |           |
|                         | GLYPHOSATE, MONOAMMONIUM SALT                           | 8.0683         |                           |                |           |
|                         | HEXAFLUMURON  | 0.0134         |                           |                |           |
|                         | HYDRAMETHYLNON  | 0.2434         |                           |                |           |
|                         | HYDROPRENE  | 1.1714         |                           |                |           |
|                         | IMIDACLOPRID  | 252.5000       |                           |                |           |
|                         | IRON PHOSPHATE  | 0.4250         |                           |                |           |
|                         | ISOXABEN  | 0.0200         |                           |                |           |
|                         | LAMBDA-CYHALOTHRIN                                      | 3.5519         |                           |                |           |
|                         | MALATHION   | 8.7007         |                           |                |           |
|                         | MECOPROP-P  | 0.0974         |                           |                |           |
|                         | METALDEHYDE   | 2.2400         |                           |                |           |
|                         | METHOPRENE (POST 1997 SEE CHEM CODE 5026)               | 0.0472         |                           |                |           |



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|-------------------------|--------------------------------------|----------------|---------------------------|----------------|-----------|
| STRUCTURAL PEST CONTROL | S-METHOPRENE                         | 0.1847         |                           |                |           |
|                         | MSMA                                 | 0.4273         |                           |                |           |
|                         | MUSCALURE                            | 0.0004         |                           |                |           |
|                         | NOVIFLUMURON                         | 0.0984         |                           |                |           |
|                         | N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE | 2.1168         |                           |                |           |
|                         | OLEIC ACID, METHYL ESTER             | 7.1658         |                           |                |           |
|                         | PENDIMETHALIN                        | 7.6989         |                           |                |           |
|                         | PERMETHRIN                           | 266.8451       |                           |                |           |
|                         | PETROLEUM DISTILLATES                | 32.5131        |                           |                |           |
|                         | PETROLEUM DISTILLATES, AROMATIC      | 0.4647         |                           |                |           |
|                         | PETROLEUM OIL, UNCLASSIFIED          | 6.9390         |                           |                |           |
|                         | PHENOTHRIN                           | 0.0912         |                           |                |           |
|                         | PHENYLETHYL PROPIONATE               | 0.0029         |                           |                |           |
|                         | PIPERONYL BUTOXIDE                   | 16.5274        |                           |                |           |
|                         | PIPERONYL BUTOXIDE, OTHER RELATED    | 4.1287         |                           |                |           |
|                         | POTASH SOAP                          | 4.3674         |                           |                |           |
|                         | PRODIAMINE                           | 1.3004         |                           |                |           |
|                         | PYRETHRINS                           | 2.6252         |                           |                |           |
|                         | PYRIPROXYFEN                         | 0.0033         |                           |                |           |
|                         | RESMETHRIN                           | 0.3511         |                           |                |           |
|                         | RESMETHRIN, OTHER RELATED            | 0.0478         |                           |                |           |
|                         | SILICA AEROGEL                       | 57.2047        |                           |                |           |
|                         | SIMAZINE                             | 2.0025         |                           |                |           |
|                         | STRYCHNINE                           | 0.2271         |                           |                |           |
|                         | SULFLURAMID                          | 0.0617         |                           |                |           |
|                         | SULFURYL FLUORIDE                    | 782.4960       |                           |                |           |
|                         | TRALOMETHRIN                         | 0.0250         |                           |                |           |
|                         | TRIADIMEFON                          | 0.3120         |                           |                |           |
|                         | TRICLOPYR, TRIETHYLAMINE SALT        | 27.9065        |                           |                |           |
|                         | TRICLOPYR, BUTOXYETHYL ESTER         | 6.7241         |                           |                |           |
|                         | TRIFLURALIN                          | 0.0800         |                           |                |           |
| Site Total              |                                      | 2,670.3759     |                           |                |           |
| TURF/SOD                | CLOPYRALID, TRIETHYLAMINE SALT       | 1.8268         | 2                         | 2.00           | A         |
|                         | ETHOFUMESATE                         | 0.2968         | 1                         | 0.25           | A         |
|                         | FLUDIOXONIL                          | 4.9063         | 2                         | 8.70           | A         |
|                         | GLYPHOSATE, ISOPROPYLAMINE SALT      | 0.3747         | 1                         | 0.14           | A         |
|                         | PCNB                                 | 177.5000       | 1                         | 5.40           | A         |
|                         | PROPICONAZOLE                        | 12.7892        | 2                         | 8.70           | A         |
|                         | SPINOSAD                             | 0.5152         | 1                         | 1.25           | A         |
|                         | THIOPHANATE-METHYL                   | 119.2400       | 3                         | 9.30           | A         |
|                         | TRICLOPYR, TRIETHYLAMINE SALT        | 4.9822         | 2                         | 2.00           | A         |
|                         | TRINEXAPAC-ETHYL                     | 0.0709         | 1                         | 3.30           | A         |
| Site Total              |                                      | 322.5021       | 14                        |                |           |
| UNCULTIVATED AG         | GLYPHOSATE, ISOPROPYLAMINE SALT      | 0.9990         | 1                         | 1.50           | A         |
| Site Total              |                                      | 0.9990         | 1                         |                |           |
| UNCULTIVATED NON-AG     | CLOPYRALID, MONOETHANOLAMINE SALT    | 0.0463         | 1                         | 50.00          | A         |
|                         | TRICLOPYR, BUTOXYETHYL ESTER         | 0.1732         | 1                         | 50.00          | A         |
| Site Total              |                                      | 0.2195         | 2                         |                |           |
| VERTEBRATE CONTROL      | DIPHACINONE                          | 0.0068         |                           |                |           |
| Site Total              |                                      | 0.0068         |                           |                |           |
| Nevada County Total     |                                      | 34,791.9801    | 604                       |                |           |